

REMARKS

This Amendment is in response to the Office Action mailed February 25, 2008. Claims 2-8 and 17-18 are pending. Claims 4 and 7 have been amended to correct informalities, but the scope of these claims is unchanged. Claims 17 and 18 have been added. The Specification has been amended to reflect the proper claim for priority of the instant application to its parent, U.S. Patent No. 7,187,167.

In paragraphs 3-5 and 9 of the Office Action, claim 4 is objected to for the recited phrase "closed to." Applicants have amended claim 4 to recite "closer to" as correctly suggested by the Examiner.

In paragraphs 3 and 6-9 of the Office Action, claim 7 is objected to for a period occurring after the word "X-axis." before the end of the claim. Claim 7 has been amended to correct this typographical error.

At the outset, Applicants would like to thank the Examiner for recognizing in paragraphs 1-40 that claims 1-6 and 8 are allowable, but for the non-statutory, obviousness-type double patenting rejections recited in paragraphs 12-40.

In paragraphs 9-11 of the Office Action, claim 7 is rejected under 35 U.S.C. § 102(e) as being anticipated by International Publication No. WO 00/79298 to Adelerhof et al. (Adelerhof). The Examiner's rejection on this ground is respectfully traversed.

Amended claim 7 recites, "(b) an X-axis group of four of a plurality of said magnetoresistance effect elements *constructs* a single X-axis magnetic sensor for detecting a magnetic field in an X-axis direction and all of said magnetoresistance effect elements of the X-axis group have pinned magnetization directions of the pinned layers *parallel to each other*." (Emphasis added.) Claim 7 recites a similar limitation (c) with

respect to a Y-axis group of elements. The recited limitations are not disclosed by Adelerhof.

The Office Action admits that “Figure 10 shows a compact double GMR-based Wheatstone bridge for a full 360 degrees angle sensing system,” and Applicants agree with this statement. However, Fig. 10 discloses that two sensors are constructed on the left and right sides of the substrate. The first device comprises the elements connected by tracings on the right half of the substrate comprising two elements having pinned magnetization directions in the Y-axis (as illustrated by the arrow pointing up at 90 degrees) and two elements having pinned magnetization directions in the X-axis (arrow pointing right at zero degrees). On the left half of the substrate, there is a second sensor comprising two elements having pinned magnetization directions in the Y-axis (as illustrated by the arrow pointing up at 90 degrees) and two elements having pinned magnetization directions in the X-axis (arrow pointing left at 180 degrees). However, each sensor disclosed by Adelerhof Figure 10 is clearly is different from the sensors claimed in claim 7, as the pinned directions of all four elements are not “parallel to each other” as recited by the claim.

In paragraph 11 of the Office Action, the four elements having pinned magnetization directions in the X-axis are cited as the elements in the X-axis group that constructs the X-axis sensor. However, Fig. 10 does not disclose circuitry connecting those elements together to form such a sensor. In order to “construct” a sensor as required by claim 7, the elements must be connected together. Applicants respectfully request the Examiner identify where Adelerhof discloses connecting together the two leftmost X-axis elements and two rightmost X-axis elements having pinned magnetization directions in the X-axis to form such a sensor, as claimed in claim 7. Without disclosure of each and every element of the claim, the cited reference

Adelerhof cannot anticipate. In the absence of any disclosure or suggestion of these features of the invention, claim 7 is believed to be in condition for allowance.

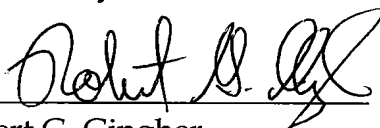
In paragraphs 12-27 of the Office Action, claims 2-8 are rejected under nonstatutory, obviousness-type double patenting grounds as being unpatentable over claims 4, 7, 8 and 11 of U.S. Patent No. 7,187,167. The Examiner further indicates that these rejections may be overcome by filing an appropriate terminal disclaimer. In response, Applicants submit herewith an appropriate terminal disclaimer for the application. Submission of the Terminal Disclaimer does not represent acquiescence in the Examiner's rejections but is made to expedite prosecution of the present application.

In paragraphs 28-40 of the Office Action, claims 2-8 are provisionally rejected under nonstatutory, obviousness-type double patenting grounds as being unpatentable over claims 1-4 of U.S. Patent Application No. 11/682,841. As the instant application is earlier filed, applicants will prosecute the claims in the instant application and will address any conflicts or non-statutory obviousness-type double patenting rejections whenever either application has been allowed. *See* MPEP § 804 I.B.1 (which states, "If a 'provisional' nonstatutory obviousness-type double patenting (ODP) rejection is the only rejection remaining in the earlier filed of the two pending applications, while the later-filed application is rejectable on other grounds, the examiner should withdraw that rejection and permit the earlier-filed application to issue as a patent without a terminal disclaimer."). As Applicants believe the instant application is allowable, Applicants respectfully request withdrawal of this rejection.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application issue.

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Respectfully submitted,

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